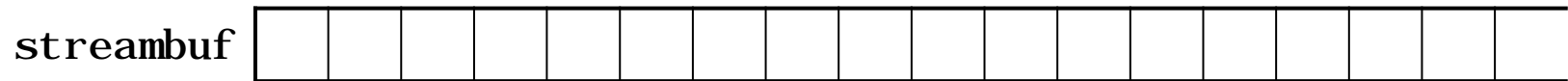


get()

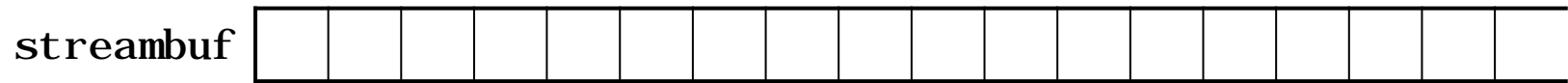
```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.get( str, 10, '\n');
```



Keyboard

ci n. good()	true
ci n. eof()	false
ci n. fail()	false
ci n. bad()	false

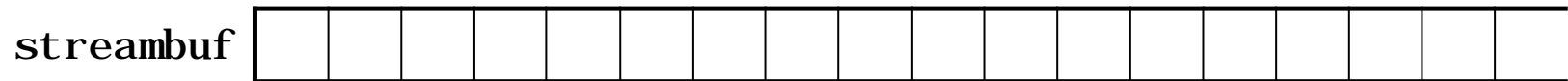
```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.get( str, 10, '\n');
```



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.get( str, 10, '\n');
```



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.get( str, 10, '\n');
```

str

--	--	--	--	--	--	--	--	--	--

streambuf

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

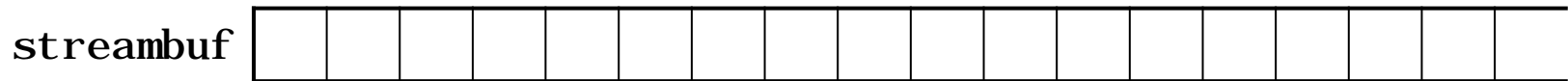


abc de\_

Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.get( str, 10, '\n');
```



abc de\n\_

Keyboard

cin.good()	true
cin.eof()	false
cin.fail()	false
cin.bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.get( str, 10, '\n');
```

str

--	--	--	--	--	--	--	--	--	--

streambuf

a	b	c		d	e	\n											
---	---	---	--	---	---	----	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];
for( int i = 0; i < 3; i++ )
    cin.get( str, 10, '\n');
```

str

a	b	c		d	e	\0			
---	---	---	--	---	---	----	--	--	--

streambuf

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin.good()	true
cin.eof()	false
cin.fail()	false
cin.bad()	false



```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.get( str, 10, '\n');
```

str

a	b	c		d	e	\0			
---	---	---	--	---	---	----	--	--	--

streambuf

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	false
cin. eof()	false
cin. fail()	true
cin. bad()	false

getline()

```
char str[ 10 ];
for( int i = 0; i < 3; i++ )
    cin.getline( str, 10, '\n');
```



Keyboard

cin.good()	true
cin.eof()	false
cin.fail()	false
cin.bad()	false

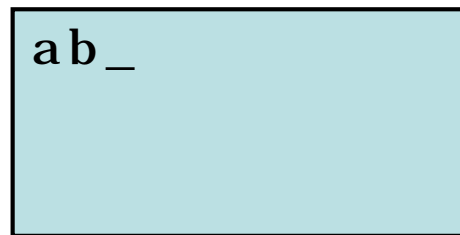
```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.getline( str, 10, '\n');
```



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

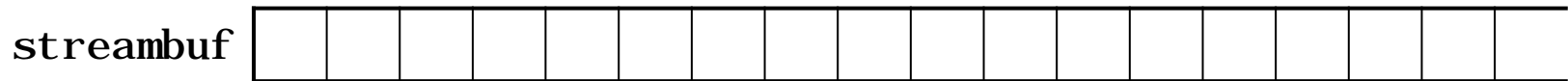
```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.getline( str, 10, '\n');
```



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];
for( int i = 0; i < 3; i++ )
    cin.getline( str, 10, '\n');
```

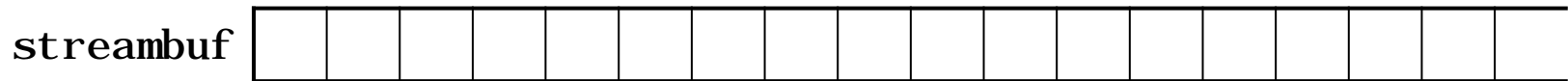


abc de\_

Keyboard

cin.good()	true
cin.eof()	false
cin.fail()	false
cin.bad()	false

```
char str[ 10 ];
for( int i = 0; i < 3; i++ )
    cin.getline( str, 10, '\n');
```



abc de\n\_

Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.getline( str, 10, '\n');
```

str

--	--	--	--	--	--	--	--	--	--

streambuf

a	b	c		d	e	\n											
---	---	---	--	---	---	----	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin.good()	true
cin.eof()	false
cin.fail()	false
cin.bad()	false



```
char str[ 10 ];
for( int i = 0; i < 3; i++ )
    cin.getline( str, 10, '\n');
```

str

a	b	c		d	e	\0			
---	---	---	--	---	---	----	--	--	--

streambuf

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin.good()	true
cin.eof()	false
cin.fail()	false
cin.bad()	false

```
char str[ 10 ];
for( int i = 0; i < 3; i++ )
    cin.getline( str, 10, '\n');
```

str

a	b	c		d	e	\0			
---	---	---	--	---	---	----	--	--	--

streambuf

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



f g h i j k l \n _
--------------------

Keyboard

cin.good()	true
cin.eof()	false
cin.fail()	false
cin.bad()	false

```
char str[ 10 ];
for( int i = 0; i < 3; i++ )
    cin.getline( str, 10, '\n');
```

str

a	b	c		d	e	\0			
---	---	---	--	---	---	----	--	--	--

streambuf

f	g	h	i		j	k	l	\n									
---	---	---	---	--	---	---	---	----	--	--	--	--	--	--	--	--	--



Keyboard

cin.good()	true
cin.eof()	false
cin.fail()	false
cin.bad()	false

```
char str[ 10 ];
for( int i = 0; i < 3; i++ )
    cin.getline( str, 10, '\n');
```

str

f	g	h	i		j	k	l	\0	
---	---	---	---	--	---	---	---	----	--

streambuf

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin.good()	true
cin.eof()	false
cin.fail()	false
cin.bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 3; i++ )  
    cin.getline( str, 10, '\n');
```

str

f	g	h	i		j	k	l	\0	
---	---	---	---	--	---	---	---	----	--

streambuf

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

Stream Extraction Operator >>

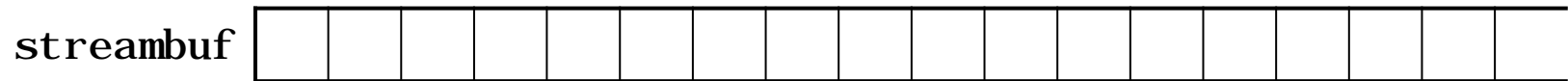
```
char str[ 10 ];  
for( int i = 0; i < 5; i++ )  
    cin >> str;
```



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 5; i++ )  
    cin >> str;
```

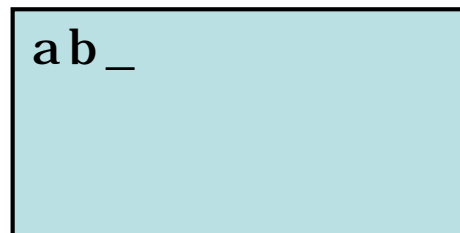
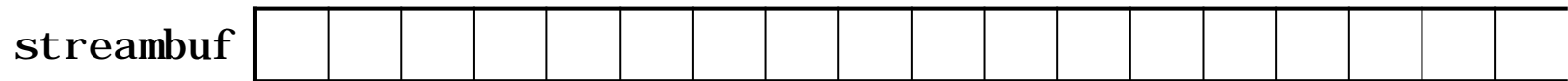


Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false



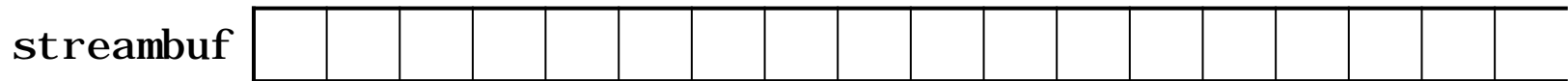
```
char str[ 10 ];  
for( int i = 0; i < 5; i++ )  
    cin >> str;
```



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 5; i++ )  
    cin >> str;
```

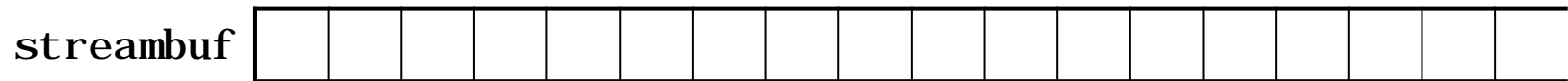


abc de\_

Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];
for( int i = 0; i < 5; i++ )
    cin >> str;
```



abc de\n\_

Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];
for( int i = 0; i < 5; i++ )
    cin >> str;
```

str

--	--	--	--	--	--	--	--	--	--

streambuf

a	b	c		d	e	\n											
---	---	---	--	---	---	----	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];
for( int i = 0; i < 5; i++ )
    cin >> str;
```

str

a	b	c	\0						
---	---	---	----	--	--	--	--	--	--

streambuf

d	e	\n															
---	---	----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];
for( int i = 0; i < 5; i++ )
    cin >> str;
```

str

d	e	\0							
---	---	----	--	--	--	--	--	--	--

streambuf

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 5; i++ )  
    cin >> str;
```

str

d	e	\0							
---	---	----	--	--	--	--	--	--	--

streambuf

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];
for( int i = 0; i < 5; i++ )
    cin >> str;
```

str

d	e	\0							
---	---	----	--	--	--	--	--	--	--

streambuf

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



f g h i j k l \n _
--------------------

Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false



```
char str[ 10 ];
for( int i = 0; i < 5; i++ )
    cin >> str;
```

str

d	e	\0							
---	---	----	--	--	--	--	--	--	--

streambuf

f	g	h	i		j	k	l	\n									
---	---	---	---	--	---	---	---	----	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];
for( int i = 0; i < 5; i++ )
    cin >> str;
```

str

f	g	h	i	\0					
---	---	---	---	----	--	--	--	--	--

streambuf

j	k	l	\n														
---	---	---	----	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];
for( int i = 0; i < 5; i++ )
    cin >> str;
```

str

j	k	l	\0						
---	---	---	----	--	--	--	--	--	--

streambuf

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
for( int i = 0; i < 5; i++ )  
    cin >> str;
```

str

j	k	l	\0						
---	---	---	----	--	--	--	--	--	--

streambuf

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

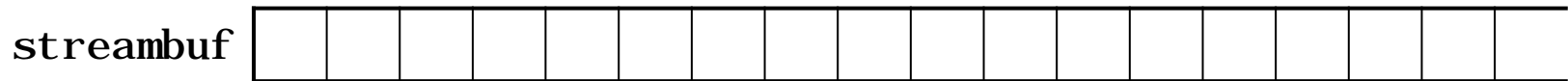


Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

Stream Extraction Operator >>  
followed by `get()`

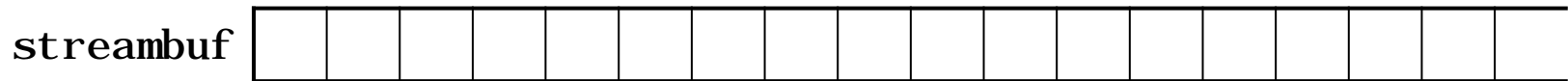
```
char str[ 10 ];  
cin >> str;  
cin.get( str, 10, '\n' );
```



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

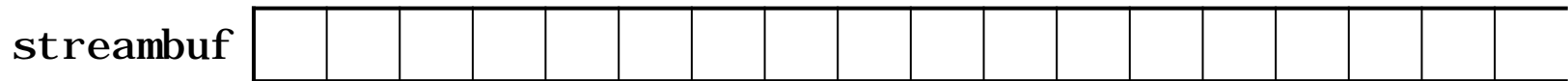
```
char str[ 10 ];  
cin >> str;  
cin.get( str, 10, '\n' );
```



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
cin >> str;  
cin.get( str, 10, '\n' );
```

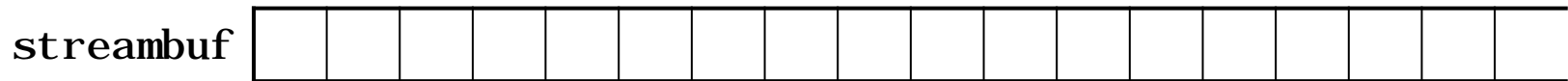


Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false



```
char str[ 10 ];  
cin >> str;  
cin.get( str, 10, '\n' );
```

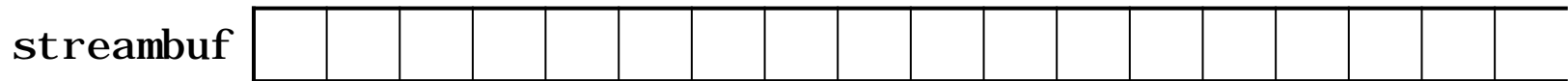


abcde\_

Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
cin >> str;  
cin.get( str, 10, '\n' );
```

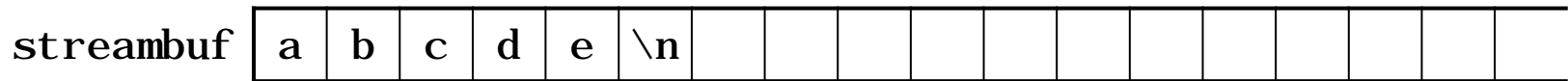


abcde\n\_

Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
cin >> str;  
cin.get( str, 10, '\n' );
```



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
cin >> str;  
cin.get( str, 10, '\n' );
```

str

a	b	c	d	e	\0				
---	---	---	---	---	----	--	--	--	--

streambuf

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
char str[ 10 ];  
cin >> str;  
cin.get( str, 10, '\n' );
```

str

a	b	c	d	e	\0				
---	---	---	---	---	----	--	--	--	--

streambuf

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	false
cin. eof()	false
cin. fail()	true
cin. bad()	false

Stream Extraction Operator >>

```
int number;  
for( int i = 0; i < 5; i++ )  
    cin >> number;
```

number

streambuf 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
int number;  
for( int i = 0; i < 5; i++ )  
    cin >> number;
```

number

streambuf 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



100 101\n\_

Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false



```
int number;
for( int i = 0; i < 5; i++ )
    cin >> number;
```

number

streambuf

1	0	0		1	0	1	\n											
---	---	---	--	---	---	---	----	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
int number;  
for( int i = 0; i < 5; i++ )  
    cin >> number;
```

number 

100
-----

streambuf 

1	0	1	\n														
---	---	---	----	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
int number;  
for( int i = 0; i < 5; i++ )  
    cin >> number;
```

number 101

streambuf 

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
int number;  
for( int i = 0; i < 5; i++ )  
    cin >> number;
```

number 101

streambuf 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
int number;  
for( int i = 0; i < 5; i++ )  
    cin >> number;
```

number 101

streambuf 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



102 103\n\_

Keyboard

ci n. good()	true
ci n. eof()	false
ci n. fail()	false
ci n. bad()	false

```
int number;
for( int i = 0; i < 5; i++ )
    cin >> number;
```

number 

101
-----

streambuf 

1	0	2		1	0	3	\n										
---	---	---	--	---	---	---	----	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
int number;  
for( int i = 0; i < 5; i++ )  
    cin >> number;
```

number 

102
-----

streambuf 

1	0	3	\n														
---	---	---	----	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false

```
int number;  
for( int i = 0; i < 5; i++ )  
    cin >> number;
```

number 103

streambuf 

\n																	
----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

cin. good()	true
cin. eof()	false
cin. fail()	false
cin. bad()	false



```
int number;  
for( int i = 0; i < 5; i++ )  
    cin >> number;
```

number 103

streambuf 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



Keyboard

ci n. good()	true
ci n. eof()	false
ci n. fail()	false
ci n. bad()	false

If the state of streambuf is good, and the first character in streambuf is not ' \n' , then after the execution of

- `cin.get`, ' \n' is not removed from streambuf,
- `cin.getline`, ' \n' is removed from streambuf if found,
- `cin.getline`, the state of streambuf is set to fail if ' \n' is not found,
- `cin >>`, ' \n' is not removed from streambuf.

If the state of streambuf is good, and the first character in streambuf is ' \n' , then the execution of

- `cin.get` leaves ' \n' in streambuf, reads nothing and changes the state to fail,
- `cin.getline` removes ' \n' from streambuf, reads an empty string and keeps the state good,
- `cin >>` removes ' \n' from streambuf, do correct read operation and keeps the state good.